

QUANTA

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Volume 24 Issue 1
Feb/Mar 2007

Information on the Association

Membership of QUANTA, the independent QL user group, is by annual subscription. The Membership Secretary can supply full details. Copies of the association's constitution & annual accounts are available from the Secretary. There is an extensive software library. There are active national subgroups. Details are given in the Member's Guide and in this magazine.

QUANTA Committee - 2006/2007

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I am looking forward to seeing as many of you as possible at the Annual General Meeting to be held at Portslade Town Hall, Hove on Sunday 15th April 2007. Also at the dinner to be held on the evening of Saturday 14th April – see details elsewhere in this issue.

This issue contains, in the centre, the papers for that meeting. Please read them carefully.

If perchance you are unable to attend please use the enclosed

QUANTA COMMITTEE PRÉCIS

Sarah Gilpin

The committee met at Cherwell Valley on 4th February 2007, this is a précis of that meeting.

It was agreed that the membership report should be made at the Annual General Meeting and not in the Feb/March magazine in order that figures can be compared with last year's report. Officer's reports and audited accounts for the AGM were scrutinised and accepted and are published in this issue.

Only one new nomination has been received for committee, but the outgoing Committee are willing to continue for another year.

The Special Resolution for changes to clause 9.1 of the constitution was approved and is in this magazine, together with the AGM agenda.

**COPY DATE for APRIL/MAY 2007 ISSUE is:
5TH APRIL 2007**

Please ensure that your copy reaches the editor on or before that date. Copy on Paper or Magnetic Media or by Email.

All Contributions are Welcome.

Copy on Microdrive or Floppy Disk or CD to be accompanied by hard copy printout.

Copy by Email to - editor@quanta.org.uk

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The workshop programme was discussed. The committee would like to thank Ken Bain and the Surrey Quanta Subgroup for their efforts in volunteering to host the Byfleet Workshop in November 2006. Committee understands that due to the low support for the last two years this will be the last Byfleet Workshop. It is still the intention of the committee that there should be at least two UK Workshops per year.

It was reported that members have been given the choice of receiving their magazine electronically in the Dec06/Jan07 magazine, to start from the Feb/March 2007 magazine. All requests for Electronic Magazines should be sent to the Secretary by email, showing the subject as 'Electronic Magazine'.

THE QL & THE GENEALOGIST(4) Sarah Gilpin

Records and References

Everyone starts their family history research somewhere. We started with two family trees and a small pamphlet inherited from my grandparents. My grandfather had found, while he was at Oxford University, that a Thomas Good had been Master of Balliol College in 1675, and that John and William Good had been Fellows of the college around the same time. His interest had been captured by the fact that the family crest of the Oxford Goods was the same as his. He had made a number of guesses as to relationships and although he had succeeded in tracing members of his family through to the present day of the 1880's, he had not recorded any of the sources of his findings!

Additional research in Oxford at the Bodleian Library, Balliol College and using A.A.Wood's Athenai Oxoniensis we have found sources for some of his work and errors in relationships of other family members. To be fair to my Grandfather, there are many more research sources available now than there were then – and of course he had no access to computers or the Internet.

On the Morice side of the family, we initially contacted the IGI Family History centre at Chorley and they sent us 20-DD disks with all the files recorded for the UK on the name Morice and all its various alternative spellings (Morrice, Morise, Moris, Morrise and Maurice). The discs contained the information in GEDCOM format, which we found contained many unwanted spaces. John wrote a programme that removed all the unwanted spaces and converted the information into Archive format(via a comma separated variables[`csv`] file which was then Imported into Archive,

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- on the menu listed in Part 2 as IGI converter. Our early Archive database (listed on the menu as Transfer dbfs) contained the following fields: "IGI_no\$": "name_sex)": "father\$": "mother\$": "spouse\$": "birth_date\$": "birth_place\$": "bapt_date\$": "bapt_place\$": "marr_date\$": "marr_place\$": "death_date\$": "bury_place\$": "children\$": "event\$": "notes\$": and "IGI_refs\$"

The "IGI no\$" was generated from the Family History Centre Disc Number (they came numbered 1 to 20) and the number of the entry on that disc (i.e. 02-0820 would relate to the 820th entry on disc number 2). The "IGI_refs\$" came from numbers included in the IGI data representing batch, file, source and page from their source data. The discs related to either 'baptisms' and 'marriages', so that the same person could appear on more than one disc. There was frequently no connecting information between an individual's baptism and the same individual's marriage. Duplications occurred through changes of spelling of forenames, surnames and place names and dates from parish registers. An excellent example is the baptism of Anne Goode of Abenhall, Gloucestershire in the early 1600's – Anne is listed with and without the 'e', Goode is listed with and without the 'e', Abenhall is spelt Abenhall, Abinghall, Aben Hall, Abing Hall and Abenall – some of the records list her father and some do not.

Another extremely useful tool was the complete 1881 census covering all the UK on disc released in 1980s. We used the information provided to expand our Archive database and added the following fields: "record_no": "name_group\$": and "census1881\$". "Record_no" (the only numerical variable) enabled us to maintain the order of the file while "census1881\$" field contained occupation and address of the individual at the census date.

We changed the field "IGI_no\$" to "Identifier\$" to include other sources for new individuals and we removed the '-', so that the number given in the previous example now reads 020820. The "children\$" field holds the Identifiers of any children in that family (value = "No children found" where we could not confirm any parent/child relationship).

We came to a point where we had a number of pieces of information from differing sources but we had no cross reference to tell us which source was relevant to which piece of information. It was easy enough to recognise the data from the Civil Registers but not so easy for the data from elsewhere. The time had come to rethink our database format and to add fields for sources.

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The continuing growth of the database to over 20,000 records meant that in order to maintain reliability a maximum number of 500 records on any one .dbf file resulted in about 40 files. Here I should point out that the records within each file were listed alphabetically and in date order. The Re-sort, Re-siZe; and Transfer facilities are used periodically to ensure that files are kept at 500 records, and are in their correct sorted order.

We realised that with the extra fields we were looking at adding to provide source references that we should need to make a second screen for each individual - Archive will only display 25 lines (fields) on a 256X512 Screen. By using the Archive SEDIT facility we designed two screens such that the first screen displayed the data while the second displayed the sources from which the data had come. Both screens display the following fields for identification purposes.

“identifier\$”: “record_no”:name_group\$”:date_slot\$”:name_sex\$”

The “name_group\$” field holds the Generic name, e.g. Elizabeth, whereas the name might be any of Elizabeth, Elisabeth, Elspeth, Elsie, Elisa, Beth, Betty etc. The “date_slot\$” field holds the earliest date on a record; this will be either an actual birth date, or actual baptismal date or an estimated birth date. Estimated birth dates are worked (by us) as 23 years for women and 25 years for men before either a marriage date or the birth of first child and is entered with “(EST)” after the date. We are aware that this can be very inaccurate, but it does provide a guide as to when to look for the confirming information.

The first screen of a record also shows where known:

Father’s Name (“father\$”): Mother’s Name (“mother\$”): Spouse’s Name (“spouse\$”): Birth Date (“birth_date\$”): Birth Locn (“birth_place\$”): Baptn Date (“bapt_date\$”): Baptn Locn (“bapt_place\$”): Marrg Date (“marr_date\$”): Marrg Locn (“marr_place\$”): Death Date (“death_date\$”): Bury Locn (“bury_place\$”): Once Lived (“lived_at\$”): Children (“children\$”): Census Data (“census\$”): Other Events (“event\$”).

The second screen of a record also shows where known;

Parent Source (“psparents\$”): Spouse Source (“psspouse\$”): Birth Source (“psbirth\$”): Baptn Source (“psbapt\$”): Marrge Source (“psmarr\$”): Death Source (“psdeath\$”): Burial Source (“psbury\$”): IGI References (“IGI_refs\$”): Other Contributors (“contribs\$”): Notes1 (“note1\$ “): Notes2 (“notes2\$”).

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We already had a number of single letter navigation aids at the bottom of the display screen as follows:

Alter; Back; Delete; Extract; First; Insert; Last; Next
Re-sort; Re-siZe; Search; Transfer; <ESC> = Stop

A description has already been given of Re-sort; Re-siZe and Transfer. Except for Search and <ESC>, we feel that the others are self-explanatory to those familiar with Psion Archive.

Search enables us to search all the database files for specified string text. In addition we can specify either Father's and/or Mother's names to be included in the search. For example a search on Bristol with Father = John and Mother = Mary will return only those records which contain the string "Bristol" and where the Father is John and the Mother is Mary (similar to the "find" facility in Archive with extra conditions).

On pressing the <ESC> key the programme is immediately halted and all open database files are closed. By flagging all files that have been altered during a session these files will then be backed up onto the main hard-drive, after which the QL returns to the main menu.

Two new single letter navigation aids were added to the display screen as follows:

Alter; Back; Delete; Extract; First; Insert; Last; Next; NeXt Page;
Position; Re-sort; Re-siZe; Search; Transfer; <ESC> = Stop

NeXt Page toggles a record between first and second screens. Position "locates" an individual record on "record_no".

We are now going through the database files to bring them up to date – a long and laborious task that needs to be done. As each record is updated the sources are added – IGI references; Civil Registers; Family; census; Parish registers etc. Also to show that the file has been updated all empty fields are being marked 'Not known' on page 1 and 'None' on page 2. We are creating new records for Fathers and Mothers that have no existing record and giving their source reference as the reference for the child's record. It is only a cynic that queries whether the parent ever existed and therefore needs no file. For example if you have a baptismal record for an individual William which shows his parents as John and Mary it follows

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logically that they existed and should have a record of their own. Sometimes we find that we have their records associated with other children and that this is a child not previously found or recorded. Beware - sometimes there are more than one couple with the same names in the same parish, this is more common in earlier records when only the Father's name was given(see article 3, QUANTA Magazine, Volume 23, Issue 6, page 6)

I would strongly recommend that anyone starting on their family history makes provision for recording the sources together with the data on each individual's record from the outset. It will save a lot of hard work that we have had adding them at a later date. It will also enable those that follow and use your information to verify your data against the source if they so wish.

I shall end by asking you to consider what, if anything, you would like to happen to all your research and data when you have finished? There is a Group called the One Name Society who will accept family data in a form accessible by a PC, they also encourage family historians to become the holder of material on their family name. They can be found on the Internet, and will send you information. So one of our future tasks will be to make all our information accessible from a PC – what joy!! Fortunately Psion Archive's command "EXPORT" will produce Comma separated variable files quite quickly and these in turn can be read and manipulated in almost any Text Reader.

WARNING

Information on living people may be covered by the Data Protection Act and the data holder may require registration with the Data Protection Agency. Information held for your own use only may be exempt from registration, but if you intend to pass the information on to others you should contact the Agency for their advice.

This is why many sources do not hold information less than 100 years old. One exception to this is the Civil Registers of Births, Marriages and Deaths, which is available at many libraries and records offices.

We have seen how to draw solid 3D pseudo objects using Imaginary-number mathematics. I will now show you how I experimented to discover suitable variables to feed into the program.

Complex_bas basically uses the same fractal method as before, (on lines 180-190), but the power factor and initialisation is so much modified as to be totally original, (the output is fundamentally different).

The inner loop now accepts key presses as follows:

ENTER Reprints the initialisation parameters.
UP Zooms out.
DOWN Zooms in.
SPACE Moves on to the next pattern.
ESC.....Quits the program.

It would be tempting to write a list of interesting initialisation parameters for you to try, so as to see the full range of patterns produced, but the best way to proceed is to run the program and just watch, zooming as necessary. The last parameter printed on the screen is the scale, so you can estimate how far you have zoomed.

The output may seem to stop sometimes, but in fact the routine is just overprinting points at places already dotted, so wait if you have patience and the drawing may suddenly recommence. If you wish you can swap to OVER -1 at line 120:4, so that when the program overprints, points will twinkle. (Or else just hit the space key to move on).

As modified, the program produces considerably more motifs of a much more varied character than in its original form, and is somewhat faster. I spent quite some time waiting for the random number generator to produce a wide sample of pattern types, and was surprised to see such unusual output as a circle sliced in three, and even a perfect square! Randomness being as it is, you may well stumble on a completely original design, as there is a huge range of parameter combinations possible.

If you have the time, replace line 150 by three nested FOR loops to get a more thorough test, but don't try using step factors smaller than 0.1 unless you have many long hours free!. If you are very meticulous and analytical, you will see the logic of the maths formula: Output follows a pattern which calculates the 'Orbit' of successive generated points. Indeed some motifs plot these orbits smoothly without gaps, which therefore appear as beautiful interwoven loops...

Happy imaginary number generating!

Some time ago there was a screen-saver competition, for which I submitted several entries. The enclosed routine is one of them, which has never been published.

At first I wrote a Kaleidoscope routine, which had to define and draw different quadrangular shapes on the screen, then mirror them to all four quadrants. Whilst writing that program, I experimented with XORing, (using OVER -1), and soon noticed that XORing in fact allowed me to produce all manner of output, without me having to define the polygons produced.

So I set about producing a routine that would draw rectangular and triangular patterns simply by XORing BLOCKS embedded within nested FOR loops, all controlled by random flags. The technique worked quite well, so after some experiments with the randomness I quickly had my next Screen-Saver.

The most surprising part is the complexity of output produced by such short code. But I am always amazed at the almost infinite quantity of programs that can be produced with just a few nested loops!

Best Wishes

```
100 REMark Grid_bas by S. Poole, v2july2006
110 :
115 OPEN#1,con_16: WINDOW 512,256,0,0
120 MODE 8: BORDER 0: PAPER 0: CLS
130 z=0: u=1: h=1: t=2: e=128: a=255: w=511: L=256
140 :
150 REPEAT loop
160 c=RND(a): k=c: IF RND(1): k=L-c
170 g=RND(a): q=g: IF RND(1): q=L-g
180 aa=RND(1): bb=RND(1): cc=RND(1): dd=RND(1)
190 IF (aa+bb+cc+dd)=0: GO TO 180
200 OVER -1: IF RND>.3: OVER 0
210 :
220 FOR s=4,2,1
230 IF RND>.5 THEN
240 b=L-s: st=s
250 :
260 FOR y=z TO b STEP st
```

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```
270      j=a-y
280      IF aa: BLOCK w,h,z,y,k
290      IF bb: BLOCK w,h,z,j,q
300      i=y+y: u=L-i: IF u<0: u=0
310      IF cc: BLOCK t,L,i,z,c
320      IF dd: BLOCK t,L,u,z,g
325      i$=INKEY$(#1,1)
330      END FOR y
340      END IF
350      END FOR s
360      END REPEAT loop
370      ::
```

End of listing

PARENTHESES

Steve Poole

Where better to start studying brackets than in Jan Jones's Quanta-sponsored 'SuperBASIC Handbook'. First, the index gives four page references which cover most of the uses, if succinctly. Perhaps the best way to revise parentheses is to look at the Syntax Graph on page 160:

This, in revealing how Basic statements are parsed by the interpreter, shows the simple logic of brackets. Parentheses can enclose expressions to form sub-expressions, parameter-lists, or names, which define the priority of expression evaluation. In this respect, evaluation priority follows the mathematics hierarchy, or in the case of equal rank, works from left to right.

But there are snags, as priority affects the calling-order of actual routine-parameters, whose returned values reassign their associated expressions, but not necessarily in the order intended. This is another case where the virtually-infallible logic of the machine goes against the grain of the workings of the human brain.

The Turbo manual makes a great case for modifying this unexpected behaviour by the use of two notions: Passing values by REFERENCE or by VALUE. By 'Reference' means the returned values in actual parameters affect the associated variables. By 'Value' means the associated variable remains unmodified. But there is a very simple SuperBASIC way of doing this: Sub-expressions are by definition enclosed in brackets, meaning they are not associated to any entry in the name-table. Therefore they cannot

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return values anywhere. Basic always works by reference, unless you enclose each actual parameter in brackets!

```
100 a=1: b=2: c=d(a,b): PRINT a,b
110 DEFine FuNction d(e,f): e=e+1: b=b+1: RETurn 1
120:
130 g=1: h=2: i=d((g),(h)): PRINT g,h
```

So to avoid priority confusion, protect your associated values by using sub-expression brackets, and be very wary of acrobatic parameter-reassignments...

```
100 a=1: b=2
110 print d(a,d(a,d(a,b)),c,d),d(a,b),a,b
```

Any bets on what a and b will be printed as?

Brackets can be put just about anywhere in expressions, so think very hard before using them, and remember : KISS : (Keep it simple Stupid): Now try grabbing any old bit of code and inserting brackets all over the place, and try to predict what the effect will be, even in array or FOR loop indexing. You are most likely to get a 'Missing left or right parenthesis' ERROR-message even before your logic gets twisted! Don't forget names: PRINT '123456'(PI)! or left-hand side index-lists of DIM'ed statements, eg: t\$(1 to 2)='34'. This all makes sense thanks to the Syntax-Graphs!

Best Wishes

CLUE TO THE XMAS CHALLENGE(2) John Gilpin

Correction

Having received no entries to the QUANTA Christmas Challenge, even after Steve's clue in the last issue, I was relieved to hear from Steve with a couple of corrections to his article.

In QUANTA Magazine Volume 23, Issue 6, Page 29, the formulae to use are:

And $x = v \cos a^*t$
 $y = v \sin a^*t - \frac{1}{2}gt^2$

Line 60 of the listing should read:

```
60tmax=2*v*SIN(a)/g
```

Apologies from Steve. We hope that it is now easier. [Ed]

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NOTICE CONVENING
ANNUAL GENERAL MEETING 2007

Notice is hereby given that the Twenty-third Annual General Meeting of QUANTA will be held at Portslade Town Hall, Victoria Road, Portslade, Sussex BN41 1YF on 15th April 2006 at 2 p.m. for the following purposes:

- 1. To receive the Annual Report of the Committee.**
- 2. To receive the Annual Accounts and Auditor's Report.**
- 3. To receive the Membership Secretary's Report.**
- 4. To elect members of the Committee.**
- 5. To appoint an Auditor and authorise the Committee to fix his/her remuneration.**
- 6. To consider and vote on one Special Resolution as set out below:**

SPECIAL RESOLUTION Number 1

Background:- In 1998 there were 876 members. Membership has now declined to just over 200, and it is considered that this clause needs to be further amended to obviate the possibility of a Special General Meeting being called frivolously.

Committee, therefore, recommend the AGM 2007 to approve –

Special Resolution No. 1 – That –

In line 3 – after 'must be signed by' delete 'five percent (rounded up to the nearest whole number) of the actual membership (as certified by the Membership Secretary) on the first day of October immediately preceding the date of the requisition,' and replace it with '20 members'.

By Order of the Committee

Sarah Gilpin, Secretary.

During the year Workshops have been held at Manchester, Hove, Niagara Falls and Byfleet. Attendance has been lower than hoped, and consequently potential sales levels have given Traders small encouragement to turn out. Sponsoring two lecturers for each workshop has proved to be positive.

Producing a full size magazine has been greatly helped by a most pleasing steady stream of articles on a wide variety of topics. A big thank you to – David Buckley, Sarah Gilpin, George Gwilt, Dilwyn Jones, and Steve Poole. I am pleased to report, also, that we have a reserve stock of articles for use in 2007.

Trials of the electronic version of the magazine are now complete. The first issue made generally available to members in this format was that for February/March 2007. It has been designed to be receivable by anyone with a “Dial-up modem”

To get your copy of the magazine in electronic format all you need to do is to send an email to secretary@quanta.org.uk with an email subject of “Electronic Quanta”. Your free subscription to the electronic version will commence with the next issue of the magazine to be published. From that issue you will cease to receive the hard copy version, and in so doing you will help to contain the cost of printing and distributing the magazine.

In April 2006 Bruce Nicholls advised me that he was unable to continue maintaining the quanta.org.uk web site. Thank you Bruce for all that you have put in over the years in setting up and maintaining that facility for Quanta. A new Web host was needed, preferably one that Quanta Committee could maintain themselves. Enquiries were made, The outcome is that quanta.org.uk was quickly, smoothly and with virtually no break in service transferred to “Continuum” – Adam Gilpin’s employer. Committee has a facility to maintain this new site.

The summer unfortunately found the East Anglia QL group having to close down due to loss of their meeting place.

At the turn of the year John Gregory had to resign, after 13 years service as Software Controller and also as Librarian, due to work commitments. As Software Controller he put considerable effort into ensuring that no proffered program was accepted into the Library until it could be shown that it ran properly. Thank you John for all the very much unseen work that you have done for Quanta.

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Roy Brereton, once more, has most kindly taken on this role.

At long last we appear to have found a member willing and able to refurbish the QUANTA Web Site – Dan Abbott.

With regard to the Committee for 2007/2008 – Dan Abbott has been duly nominated and seconded for election as an Ordinary Committee Member. Beyond that the outgoing Committee members are willing to stand for a further year.

Sub-Clause 9.1 of the Constitution was last updated at the 1998 AGM. At that time there were 876 members. There are now just over 200 members. Committee has come to the view that this sub-clause now needs to be further amended to obviate the possibility of a Special General Meeting being called frivolously.

It is considered that in line 3 – after ‘must be signed by’ the words ‘five percent (rounded up to the nearest whole number) of the actual membership (as certified by the Membership Secretary) on the first day of October immediately preceding the date of the requisition,’ need to be deleted and replaced with the words ‘20 members’.

This amendment will be put to the 2007 AGM as a Special Resolution. Committee recommend you to approve same.

If it is approved then Sub-Clause 9.1 of the Constitution will read:–

9.1 Members may requisition and the Committee shall convene a Special General Meeting within twenty one days of receiving such a requisition. The said requisition must be signed by at least 20 members, must state the objects of the meeting which must be in a form on which members can vote and together with the sum of three hundred pounds sterling, or such other sum of money as the members in Annual General Meeting may determine, must be deposited with the Secretary. The Committee must give to all members entitled to attend and vote at least twenty one days notice of the meeting.

WHAT NEXT?

Committee has reviewed Subscription rates for 2007/2008 and has come to the conclusion that they should be maintained at the same rates as 2006.

Committee propose to continue to hold at least two QUANTA workshops a year.

There do not seem to be any exceptional items in the QUANTA Financial year to 31st. December 2006 and I can only report a mostly standard year.

Points that should be noted, however, include the following:

- 1) Under the financial ruling that stocks of saleable goods should be shown on the Balance Sheet as "the lower of the cost price or net realisable value", I have reduced the stock valuation as shown:

<u>Item</u>	<u>Qty</u>	<u>Old £ (Ea)</u>	<u>New £ (Ea)</u>
Jan Jones' Book	4	3.68	1.00
P. Hamill's Book	36	1.00	0.10
GST QL Macro Assembler	1	13.66	10.00
Coloured Sweat Shirts	4	6.50	1.00
QL is 21 Phone Chairs	15	1.00	0.50
QL is 21 Tee Shirts	54	5.00	1.00

This has had the effect of reducing the QUANTA assets by £410.00 but the lower figure more accurately represents the current value of stocks held for resale.

- 2) Subscriptions received are down on last year as a result of reduced membership figures
- 3) The interest received on monies held in the Deposit Account is reduced by lower interest rates offered (apart from a slightly lower amount being on deposit).
- 4) Magazine Printing costs is reduced because of the 2006 figure only represents 5 magazines whereas postage costs have (as expected) slightly increased.
- 5) There was no "QL is 21" Income or Expenditure in 2006
- 6) Stock movement is increased - see 1) above

The net result of these changes shows a loss of £618 on the year. As predicted on previous occasions, this loss is to be expected and is such that QUANTA could sustain similar losses for the next 20 years from the Accumulated fund.

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Improvements “in house” to the QUANTA Magazine have now just about gone as far as they can go without spending more on the printing costs. Work on the development of a magazine which can be emailed to those of our members who prefer it that way has also been completed. This does not mean that the reduced number of copies printed will necessarily reduce the printing cost as I feel that we are already below the viable quantity. What will reduce, however, will be the postage and we look forward to receiving instructions from our members who are prepared to accept their magazine electronically. Our thanks are extended to Roy Wood of Qbranch who has once again handled our Credit Card Membership renewals throughout the year.

The cost of Workshops continues to rise both in Committee expenses incurred and in the cost of suitable venues. The committee do, however, feel that QUANTA should support at least two Workshops per year.

I would also like to thank Rich Mellor of RWAP Services for his efforts on behalf of QUANTA in the sale of second user goods from our “Stock-pile”. I trust that he will be able to continue to provide us with “Donations” for some time to come.

Finally, my personal thanks to our Auditor who due to her home commitments had to pass the actual Audit to an associate of hers and thus was able to ensure that the work was completed on time and to the usual high standard. I shall be recommending her ongoing appointment to the AGM 2007.

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QUANTA Income and Expenditure Account For the Year Ended 31st December 2006.

£	2005 £		£	2006 £
		INCOME		
	3,426	Subscriptions		2,986
	22	Sale of Goods to Members		1
	8	Credit Card Charges		19
	220	Advertising		120
	29	Library Receipts		2
	377	"QL is 21"		0
	118	Donations		<u>272</u>
	<u>4,200</u>			<u>3,400</u>
439		Interest Received	325	
<u>23</u>		Less: Taxation (Plus refund)	<u>23</u>	
	<u>416</u>			<u>348</u>
	<u>4,616</u>			<u>3,748</u>
		EXPENDITURE		
	1,312	Magazine Printing Costs		800
	478	Magazine Postage Costs		485
	103	Sundry Purchases		0
	460	"QL is 21" Purchases		0
	<u>-293</u>	Less: Stock Movement		<u>410</u>
	<u>2,060</u>			<u>1,695</u>
		OVERHEADS		
	160	Subgroup Support		60
	396	AGM Costs		500
	728	Committee Meetings		391
	395	Workshop Costs		1,047
	378	Committee Members' Expenses		433
	-6	Royalties Payable		0
	110	Insurances		110
	3,167	"QL is 21"		0
	110	Accountancy & Audit		110
	<u>8</u>	Bank & Credit Card Charges		<u>20</u>
	<u>5,446</u>			<u>2,671</u>
	<u>-2,890</u>	SURPLUS / (DEFICIT) FOR THE YEAR		<u>-618</u>
	<u>-2,890</u>	To/(From) QUANTA Accumulated Fund		<u>-618</u>

John Gilpin (Signed)

Honorary Treasurer.

Quanta Magazine
ANNUAL GENERAL MEETING 2007
TO ALL QUANTA MEMBERS

The Proxy Form which you will find on the next page is your chance to vote at the AGM on 15th April even if you can't be present on the day. It is purposely on the middle page so that you can remove it without damaging the rest of the magazine, fill it in and return it to:

Mrs. Sarah Gilpin,
QUANTA Secretary,
181, Urmston Lane,
Stretford,
Manchester.
M32 9EH

To be received by her not later than 5th April 2007

Remember, this is YOUR VOTE. USE IT.

SUSSEX QL USER GROUP INVITE YOU ALL TO
PORTSLADE for a QUANTA WORKSHOP
and QUANTA AGM 2007

At: Portslade Town Hall, Victoria Road,
Portslade, Sussex. BN41 1YF

ON

Sunday 15th April 2007 10.00am to 4.00pm

Speakers at the workshop will include:
Roy Wood
Geoff Wicks

Hotel accommodation is available nearby
details from Roy Wood - see overleaf.

The AGM will be held at 2.00pm.

Quanta Magazine

You are all also cordially invited to a **Dinner** on Saturday 14th. Please book your place by sending £15.00 (cheques payable to Roy Wood) to Mr. R Wood, 20, Locks Hill, Portslade, Sussex BN41 2LB

by 31st March 2007. Tel: +44(0)1273 386030

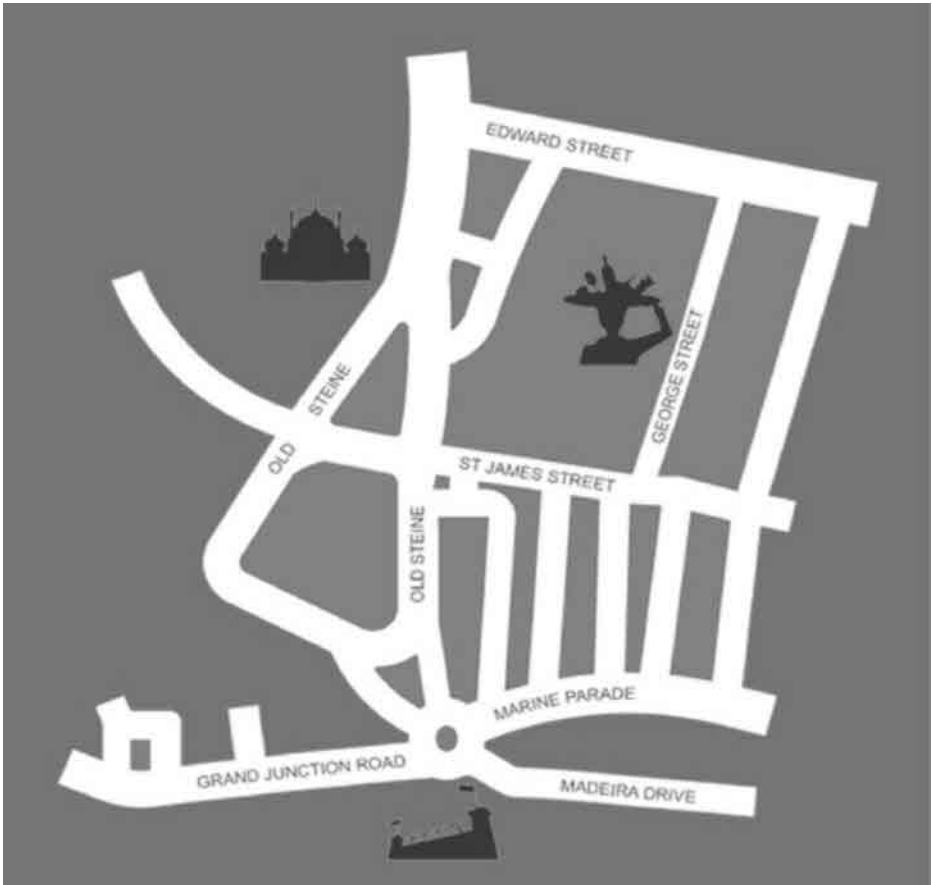
OR

Contact Roy at: sales@qbranch.demon.co.uk

The Dinner will be at Bom-Banes Restaurant

24, George Street, Brighton. BN2 1RH (see map below)

And a day by the seaside - What more could you ask for?



Quanta Magazine

SPECIAL RESOLUTIONS

FOR

AGAINST

ABSTAIN

SPECIAL RESOLUTION Number 1

Background:- In 1998 there were 876 members. Membership has now declined to just over 200, and it is considered that this clause needs to be further amended to obviate the possibility of a Special General Meeting being called frivolously.

Committee, therefore, recommend the AGM 2007 to approve –

Special Resolution No. 1 – That –

In line 3 – after ‘must be signed by’ delete ‘five percent (rounded up to the nearest whole number) of the actual membership (as certified by the Membership Secretary) on the first day of October October immediately preceding the date of the requisition,’ and replace it with ‘20 members’.

Dated this 16th February 2007

Signed: Sarah Gilpin - Secretary

NOTES:

1. If you wish to appoint as your proxy a person other than the Chairman of the meeting, delete “ The Chairman of the Meeting” and insert (in Capitals) the name and address of your desired proxy, who must be a member of QUANTA at the time of the meeting
2. This form must reach the Secretary, Mrs. Sarah Gilpin, 181 Urmston Lane, Stretford, Manchester, M32 9EH, United Kingdom, on or before the 9th. April 2007.

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QUANTA Balance Sheet as at 31st December 2006.

£	2005 £		£	2006 £
		<u>FIXED ASSETS</u>		
	1,075	Equipment at Cost		1,075
	<u>-1,067</u>	Less: Depreciation		<u>-1,067</u>
	8			8
		<u>CURRENT ASSETS</u>		
549		Stock of Goods for Resale	139	
57		Prepayments and Debtors	0	
		Bank Accounts:		
1,253		Current Accounts	770	
11,689		Deposit Account	11,949	
150		Cash in Hand - J Shelton Float	150	
<u>0</u>		Cash in Hand - Treasurer	<u>0</u>	
	13,698			13,008
		<u>CURRENT LIABILITIES</u>		
663		Accrued Charges and Creditors	591	
	<u>663</u>			<u>591</u>
	<u>13,035</u>	NET CURRENT ASSETS		<u>12,417</u>
	<u>13,043</u>	<u>TOTAL ASSETS</u>		<u>12,425</u>
		<u>FINANCED BY ACCUMULATED FUNDS</u>		
15,933		Balance brought forward	13,043	
<u>-2,890</u>		Surplus/(Deficit) of Income for the Year	<u>-618</u>	
<u>13,043</u>			<u>12,425</u>	

AUDITOR'S REPORT TO THE MEMBERS OF QUANTA:

I have examined the Income and Expenditure Account and Balance Sheet for the year ended 31st. December 2006 and confirm that they are in accordance with the books and vouchers of the association and the explanation and information provided.

Signed: Catherine Banks

Name & Address: Catherine Banks

2, Anchorage Road,
Urmston,
Manchester.
M41 9WW.

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MINUTES OF THE QUANTA ANNUAL GENERAL MEETING 2006

VENUE: MANCHESTER

DATE: 9TH April 2006

Meeting started – 14:00

Present:

John Mason (Chairman), John Gregory (Librarian), John Gilpin (Treasurer), Sarah Gilpin (Secretary). Dilwyn Jones, John Butterworth, Alison Southern, Alexia Southern, John Southern Geoff Wicks, Chris Grogan, John Sadler, George Gwilt, Alan Horsley and Alex Wells

Apologies:

Roy Brereton

Minutes of AGM 2005:

Proposer – Alan Horsley

Seconder – George Gwilt

Passed by a show of hands

Matters Arising:

None

Chairman's Annual Report:

John Mason read a shortened version of his report which is printed in the Feb/March 2005 issue of the Magazine. Comments from the floor were accepted: Geoff Wicks made two points 1) that there had been a great improvement in the quality of both the technical aspects and the content of the magazine and 2) he approved of the idea of paying for a couple of speakers or demonstrators to attend workshops, particularly as we should be looking towards traderless shows in the future. With that in mind we should look at one day shows as the norm. John Southern raised the query as to whether Quanta could act on behalf of the traders at workshops, and this suggestion was accepted by the Committee as worth following up. Geoff Wicks pointed out that while there was a lot happening within the QL community there is not much activity among the Traders who support the QL and are making a steady loss each year.

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Treasurer's Report:

John Gilpin presented his report, the Income and Expenditure Accounts and the Balance Sheet for 2005 as printed in the Feb/March 2005 magazine.

The first point he made was that while there had been a small overspend at QL is 21, Quanta had remained within the budget set. Geoff Wicks asked whether it would be possible to have a breakdown of the 'QL is 21' expenses and John Gilpin replied that this was possible but not available at the meeting, and that he would publish the breakdown in the next issue of the magazine. Geoff pointed out that the matter of the AA signage could have been better handled to protect the committee members as it had been a large single (and in his opinion unnecessary) item of expenditure. Sarah Gilpin commented that road signs could not be put up without Council permission and that the AA signs had been most helpful to motorists entering Portsmouth. John Mason added that a plan had been made as to where signs should be placed and the AA had followed that plan. He also added that the view of the expense changed drastically between motorist and pedestrian.

John Gilpin continued by pointing out the increase in this year's auditors fees, the first in three years, and that these fees were still offset by the Tax rebate.

Geoff Wicks asked whether, as the income from the traders is minimal, we should look to stop advertising in the magazine as a help to the traders. John Gilpin replied that perhaps we could look at free advertising and John Mason agreed that this would be discussed by the committee. Geoff said that we might find the traders would just stop advertising as there is no longer any profit in supporting the QL to which John Mason pointed out that every trader had been given a free advert in the new Member's Guide. Geoff Wicks appreciated the gesture on behalf of the traders.

Approval of the Annual Accounts and the auditors report was
Proposed by: John Saddler
Seconded by: John Butterworth
Approved by: a show of hands

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Election of the Committee for 2006/2007

John Mason stated that procedurally as the number of nominations received did not exceed the number of positions available on the Committee the Chairmen can accept and appoint all nominees. Therefore the Committee for 2006/2007 is as follows:

Chairman	-	John Mason
Treasurer	-	John Gilpin
Secretary	-	Sarah Gilpin
Librarian	-	Roy Brereton

He thanked John Gregory for the long service he had provided as Software Editor and Librarian and accepted his resignation from committee.

Appointment of Auditor:

John Gilpin put forward the resolution that Catherine Banks should be reappointed as auditor and thanked for her continued services to Quanta. Also authorise the committee to fix the auditor's remuneration. The auditor's appointment was proposed by John Butterworth and seconded by Dilwyn Jones.

Special Resolution Number 1 was read out by John Mason and was as printed in the Feb/March 2006 issue of the magazine.

The approval of the amendment to the constitution laid out in the special resolution was proposed by John Gregory and seconded by John Southern. All members present voted for the proposal, the proxy votes received by the secretary numbered 14 for the proposal, 3 to vote at the Chairman's discretion and one letter of apology for not returning the proxy form in time.

Special Resolution Number 1 was carried unanimously.

Membership Secretary's Report:

This was as printed in the Feb/March 2006 issue of the magazine.

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The question was raised as to whether this report had been made before or after the January renewals as it appeared to show a large drop in numbers since last year. The majority of the losses are outside the UK, particularly in the USA since there was no annual show there in 2005. It was agreed that the membership numbers would be updated to include the January renewals and put into the April/May issue of the magazine. Two suggestions that were made for consideration for the committee were 1) the possibility of renewing membership online and 2) the possibility of opening a Euro account for the European members.

Open Discussion:

As the formal business of the meeting was completed the chairman asked if there were any points to be raised from the members present.

1. Geoff Wicks asked for clarification on point 9.1 of the constitution regarding the number of Quanta members required to raise a special general meeting. One version quotes 5% of membership and another 100 members and both are dated as the 1998 amendment, which is correct? The chairman replied that the 100 member's version is correct and this figure was chosen to avoid the frivolous calling of special meeting. Geoff Wicks suggested that as numbers had reduced since 1998 the committee should look at revising this point, it was agreed that the committee would review point 9.1 during 2006.

2. Dilwyn Jones asked whether Quanta would support a programme developer in providing an improved screen dump for the QL that could dump GD colours. The current Sdump programme could be extended, but not made available for commercial distribution. This would enable further development of graphical projects that cannot currently be moved forward. General discussion was held regarding the costs involved the amount of help that Quanta could provide, and who would be able and willing to provide such software. Dilwyn was asked to highlight the projects that should be moved forward and Quanta would look into providing support. John Sadler commented that using QPC2 would allow the use of the Windows screen dump on the PC.

The meeting closed at 14:52

Last issue's article in this series had to be cut short due to space restrictions. This follows on from where the previous article left off [Ed]

A two bit data code stream of 1,0,2,3,1,0,2,3,... will cause either drive motor to move the vehicle forwards. So:-

FD	mL	mR		each wheel moves 2mm
1	1	0101	5	
0	0	0000	0	
2	2	1010	10	
3	3	1111	15	

BK	mL	mR		each wheel moves 2mm
2	2	1010	10	
0	0	0000	0	
1	1	0101	5	
3	3	1111	15	

RT	mL	mR		each wheel moves 2mm
1	2	0110	6	
0	0	0000	0	
2	1	1001	9	
3	3	1111	15	

LT	mL	mR		each wheel moves 2mm
2	1	1001	9	
0	0	0000	0	
1	2	0110	6	
3	3	1111	15	

RF	mL	mR		only left wheel moves forward 2mm, ie rotation of 2deg.
1	3	0111	7	
0	3	0011	3	
2	3	1011	11	
3	3	1111	15	

LF	mL	mR		only right wheel moves forward 2mm, ie rotation of 2deg.
3	1	1101	13	
3	0	1100	12	
3	2	1110	14	
3	3	1111	15	

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Pen spare pen address=1
 0 1 0001 1 +16 17
 0 0 0000 0 +16 16
 0 2 0010 2 +16 18
 0 3 0011 3 +16 19

repeating the sequence 6 times will move the pen cam through 180deg.

Indicator Control.

A data bit high causes that particular function to be ON.

eg set horn and right LED off and Left LED on

address	Indicators				required code
2	D3	D2	D1	D0	binary dec.
	Horn High Tone	Horn Low Tone	Left LED	Right LED	
10	0	0	1	0	100010 34

Reading from Zero2.

When reading data from the robot, bits zero to three (D0, D1, D2, D3) contain the status data of the sensor device selected by the address of the previous WRITE while bit six (D6) is the wireORed ready line. In addition at address zero, bit 5 (D5) in conjunction with bit 4 (D4) can contain the hole sensor information.

Address	Device	Data bit allocation				
		D4	D3	D2	D1	D0
0	Line follower			left	centre	right
0	Hole detector	left	right			
1	Fenders right		back	side	corner	front
2	Fenders left		back	side	corner	front

Line Follower and Hole Detectors.

A data bit high indicates a bright surface while a data bit low indicates a dark surface. For D4, D3 a dark surface is synonymous with a hole.

Fenders.

A data bit high indicates an obstacle.

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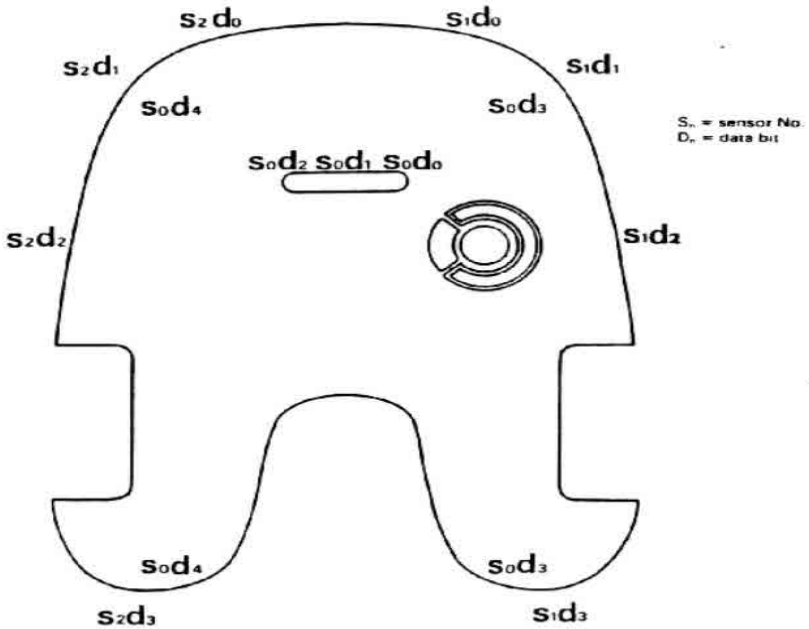


Fig. 4.2 Position of sensors and data allocations

Now let's look at the program.

Previously we looked at the history of Zero2 then data format of the signals to control Zero2. As we said before we are now going to look at the program. Like all programs which work the Zero2 control program started small and grew as more facilities were required. The first requirement was to get Zero2 to move around with simple Turtle style commands, FD BK RT LT. For correct control of the two stepper motors for the wheels, four command bytes in a particular sequence must be sent, one sequence for Forwards another for Backwards another for Right turn and yet another for Left turn. Swapping from one direction to another means jumping from one sequence to another. As explained before these sequences are:

FD = 5, 0,10,15
BK = 10, 0, 5,15
RT = 6, 0, 9,15
LT = 9, 0, 6,15

One run through a sequence moves each wheel 2mm, ie four 0.5mm steps. By limiting the resolution to 2mm I didn't have to worry about

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where in each sequence Zero2 was, they always ended on 15 which was always the right place to start another sequence.

eg	FD 2mm,	Bk2mm,	RT2deg,	LT2deg
is	5,0,10,15,	10,0,5,15,	6,0,9,15,	9,0,6,15

Now since it is necessary to send a sequence of bytes to control the stepper motors it is important to know when one byte command has been done before sending the next one. Unfortunately it is not possible to ask Zero2 'have you finished the byte command' so there had to be a way for the controlling computer, in this case the QL, to wait a little before sending the next command. This could have been done with a 'ForNext' loop or similar but then the timing would depend on the speed of the QL, GoldCard-QL, SuperGoldCard-QL etc. One fixed delay when sending commands by RS232 is the time to transmit each byte with its Start and Stop bits. At Zero2's baud rate of 4800 it takes about 2ms to transmit each byte. By sending the same command byte repeatedly 'n' times before sending the next desired command we can ensure a fixed delay of $n*2ms$ between different commands. The individual sequences are stored in \$strings. So for an overall delay of 4ms per command byte each byte is sent twice and the \$string for FD is.

FD 5,5,0,0,10,10,15,15

At the start of the program the user is asked for a speed factor, in practice 4 is the fastest, and 20 really slow. The factor is just the number of time the byte is repeated. The resulting \$strings are stored in an array mtrcmd\$.

Instead of writing a user interface it seemed reasonable to continue to use the SuperBASIC User interface and have all commands as SuperBASIC Procedure and Functions.

After the initial set of commands to control Zero2 had been written it was then decided to have the moves drawn on the screen.

Each of the robot commands has a call to

Procedure processing_link (cmdn\$,cmdn_code,cmdn_value)

which in turn calls all the procedures necessary for updating the screen before handing back control to the robot command procedure.

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Later, higher level commands such as 'home', were built on top of the robot control commands.

These higher level commands include ones to enable the program to remember robot commands in a list, replay the list forwards and backwards, single step the list, again forwards and backwards, edit the list, store the list with others in long term memory and to recall any list from long term memory.

The top level is user written commands where they are free to do whatever they want, all PROCedures and FuNctions are available for use.

At present the program has several levels:

1. initialise variables and build the motorcmd\$ array etc
2. Turtle robot control commands FD,BK etc
3. procedures to update the screen
4. high level robot and map commands
5. learned lists of robot commands
6. user written commands

Further levels were planned which would allow Zero2 to:

- map the location of 2D map objects, black areas, by use of its inbuilt Infrared line follower sensors.
- allow naming of objects and map locations
- commands to GOTO a named place or object. So far these have not been done.

Volunteers welcome!

The FuNctions and PROCedures list is as follows:

```
100 REMark =====
110 REMark *** ZERO_2 Control program ***
120 REMark ver1.0, copyright • David Buckley, 11/1/86
121 REMark ver2.0, copyright • David Buckley, 31/1/86
122 REMark ver2.2, copyright • David Buckley, May 1988
130 REMark ver2.6 see below after CLEAR
140 REMark History
150 REMark -----
160 REMark 2.4 2-6-94 penmtrcmd$ introduced, <20 too fast
```


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```
161 REMark 2.5 7Aug06 get_cmdnd_val gave 0 for cmdnd_val$>'999'
162 REMark 2.6 9Dec06 get_cmdnd_val test >9999 removed, range test put
in FD,BK,RT,LT
163 REMark      homing$, unwinding$, flags added, maxTurn, maxRange
added
164 REMark      PROC ErrorMessage added
170 REMark -----
180 REMark *      PROGRAM      *
190 :
200 CLEAR
210 prog_version$ = '2.6'
215 REMark directory$ ='win1_zero2_'
216 directory$ ='dos2_QL_Z2_'

220 coldinit
230 :
240 REMark *      END PROGRAM      *
250 REMark =====
260 :
270 REMark      Area for USER procedures
310 DEFine PROCEDURE demo
530 DEFine PROCEDURE wiggle
690 DEFine PROCEDURE squarish (d)
860 DEFine PROCEDURE test

890 REMark =====
900 REMark *** Start of SYSTEM PROCEDURES AREA
910 REMark =====
920 REMark *** INITIALISATION PROCEDURES ***
930 REMark -----
940 DEFine PROCEDURE  init_globals
1630 DEFine PROCEDURE  coldinit
1760 DEFine PROCEDURE  zinit      :REMark USER entry
2180 REMark =====
2190 REMark *** ERROR RECOVERY ***
2200 REMark -----
2210 DEFine PROCEDURE  oops      :REMark USER entry
2460 REMark =====
2470 REMark *** USER ASSISTANCE ***
2480 REMark -----
2490 DEFine PROCEDURE  QUIT      :REMark USER entry
2550 DEFine PROCEDURE  help      :REMark USER entry
```

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```
2760 DEFine PROCEDURE  exit_help
2820 DEFine FuNction  fn_wait_key$(msg$)
2930 DEFine FuNction  strip_spaces$ ( word$ )
3040 DEFine PROCEDURE  alert          :REMark USER entry
3100 DEFine PROCEDURE  buzz           :REMark USER entry
3150 REMark =====
3160 REMark  ***  PROCESSING LINK  ***
3170 REMark -----
3180 DEFine PROCEDURE  processing_link (cmnd$,  cmnd_code,
cmnd_value)
3190 REMark link robot control procedures to other processes
3270 REMark =====
3280 REMark  ***  ROBOT-CONTROL PROCEDURES  ***
3290 REMark -----
3300 DEFine PROCEDURE  robot_whereabouts (cmnd_code, cmnd_value)
3310 REMark calculate robots new co-ordinates
3450 REMark -----
3460 REMark  *  USER PROCEDURES  *
3470 REMark -----
3480 DEFine PROCEDURE  home            :REMark USER entry
3780 DEFine PROCEDURE  unwind         :REMark USER entry
3940 DEFine PROCEDURE  ihome          :REMark USER entry
4050 DEFine PROCEDURE  sb(cmnd_value) :REMark USER entry
4130 DEFine PROCEDURE  jc             :REMark USER entry
4430 DEFine PROCEDURE  FD(cmnd_value) :REMark USER entry
4560 DEFine PROCEDURE  BK(cmnd_value) :REMark USER entry
4690 DEFine PROCEDURE  RT(cmnd_value) :REMark USER entry
4820 DEFine PROCEDURE  LT(cmnd_value) :REMark USER entry
4950 DEFine PROCEDURE  peninit        :REMark USER entry
5100 DEFine PROCEDURE  pd             :REMark USER entry
5190 DEFine PROCEDURE  pu             :REMark USER entry
5280 DEFine PROCEDURE  rl(cmnd_value) :REMark USER entry
5440 DEFine PROCEDURE  ll(cmnd_value) :REMark USER entry
5600 DEFine PROCEDURE  ls(cmnd_value) :REMark USER entry
5720 DEFine PROCEDURE  hl(cmnd_value) :REMark USER entry
5880 DEFine PROCEDURE  hh(cmnd_value) :REMark USER entry
6040 DEFine PROCEDURE  ho             :REMark USER entry
6130 DEFine PROCEDURE  hn(cmnd_value) :REMark USER entry
6250 DEFine PROCEDURE  wt(cmnd_value) :REMark USER entry
6330 DEFine PROCEDURE  hoot( cmnd_value ) :REMark USER entry
6510 DEFine PROCEDURE  fish( cmnd_value ) :REMark USER entry
6690 DEFine PROCEDURE  flht( cmnd_value ) :REMark USER entry
```

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```
6840 REMark =====
6850 REMark *** SHORT-TERM-MEMORY PROCEDURES ***
6860 REMark -----
6870 DEFine PROCedure learn          :REMark USER entry
6950 DEFine PROCedure nolearn        :REMark USER entry
7030 DEFine PROCedure forget         :REMark USER entry
7110 DEFine PROCedure remember_move (cmnd$)
7190 DEFine PROCedure rlist          :REMark USER entry
7240 DEFine PROCedure ralter         :REMark USER entry
7460 DEFine PROCedure rfix           :REMark USER entry
7550 REMark =====
7560 REMark * SHORT-TERM MEMORY TESTING *
7570 REMark -----
7580 DEFine PROCedure replay          :REMark USER entry
7630 DEFine PROCedure bplay          :REMark USER entry
7680 DEFine PROCedure do_steps ( direction )
8140 DEFine PROCedure rstep          :REMark USER entry
8600 DEFine PROCedure unlearn        :REMark USER entry
8750 REMark =====
8760 REMark *** GENERAL MEMORY PROCEDURES ***
8770 REMark -----
8780 DEFine PROCedure mlist           :REMark USER entry
8900 DEFine PROCedure list_cmnds (title_msg$, cmnd_list$)
9250 DEFine PROCedure exec_cmnd (cmnd_string$)
9670 DEFine FuNction get_cmnd_num ( cmnd$, name_len )
9820 DEFine FuNction get_cmnd_val (cmnd$,cmnd_num,name_len)
9970 DEFine PROCedure exec_reverse_cmnd (cmnd_string$)
10330 REMark =====
10340 REMark *** LONG-TERM-MEMORY PROCEDURES ***
10350 REMark -----
10360 DEFine PROCedure mnames         :REMark USER entry
10410 DEFine PROCedure mexec         :REMark USER entry
10650 DEFine PROCedure exec_routine (cmnd_num)
10790 DEFine FuNction get_routine_start ( cmnd_num )
10910 DEFine FuNction get_routine_length (cmnd_num )
10980 DEFine PROCedure mget          :REMark USER entry
11130 DEFine FuNction get_cmnd_list$ (name$)
11290 DEFine PROCedure rsave         :REMark USER entry
11660 DEFine PROCedure get_routines
11840 REMark =====
11850 REMark *** DISPLAY PROCESSING PROCEDURES ***
11860 REMark -----
```

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11870 DEFine PROCedure init_windows
12820 DEFine PROCedure display_moves(cmnd\$)
12890 DEFine PROCedure learning_screens (state)
13140 DEFine PROCedure learning_msg
13230 DEFine PROCedure no_learning_msg
13290 DEFine PROCedure help_scrn
13360 DEFine PROCedure help_scrn_1
13620 DEFine PROCedure help_scrn_2
13850 DEFine PROCedure help_scrn_2a
14000 DEFine PROCedure help_scrn_3
14190 DEFine PROCedure help_scrn_3a
14440 DEFine PROCedure imap :REMark USER entry
14720 DEFine PROCedure cmap :REMark USER entry
14920 DEFine PROCedure drg_scrn
14980 DEFine PROCedure draw_move (cmnd_code, cmnd_value)
15110 DEFine PROCedure print_robot_position
15280 DEFine PROCedure draw_robot
15605 DEFine PROCedure ErrorMessage(errortxt\$,errorval) :REMark [2.6]

Errata

Part2 - In the table of motor commands RF and LF should have read:

RF mL mR only left wheel moves forward 2mm, ie rotation of 1deg.
LF mL mR only right wheel moves forward 2mm, ie rotation of 1deg.

SUBGROUP MEETINGS

THE WEST MIDLANDS QL USER GROUP

This long-running group has moved back to its previous venue, the Queens Head pub in the City Centre. Meetings remain open to Quanta members and non-members alike. The Queens Head is in Steelhouse Lane, Central Birmingham, four minutes walk from Snow Hill main-line railway station and has ample street parking nearby.

Meetings are usually on the first and third Monday of each month (but not on Bank holidays unless the previous one was cancelled for that reason). After your first meeting you're expected to pay £1 each time towards the organisation and monthly newsletter costs - except once a year when the group pays all those who attend a pound instead (We provide food twice a year for those who attend the AGM and the group's birthday party) and at meetings we discuss all sorts of things, QL-related and otherwise, usually from about

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8:20pm onwards till 10:30 or later. The group owns QL hardware, a disk library and subscribes to relevant magazines. People can join the mailing list for £3.50 per year, even if they can't attend regularly.

The contact number remains Mike Bedford White's, on 0121 708 2560, anytime after 11 am.

QUANTA DORSET SUBGROUP

Meetings are held, on the second Sunday of each month at the Merley Community Centre in Harrier Drive, Merley, just south of Wimborne Minster. Time: 2.00pm to 5.00pm. All are welcome.

John Meadows Tel: 01202 576189, or John Mason, 01425 275894.

LONDON QL AND QUANTA GROUP

Meetings are held in the School Room, which is the basement of the Borough Welsh Congregational Chapel, 90, Southwark Bridge Road, London SE1. This is almost opposite the junction with Marshalsea Road, at the other end of which, 5 minutes walk away, is the Borough Underground Station. Free parking is easily available in Southwark Bridge Road for road users, Cyclists are welcome.

Members currently each pay a subscription of £30 per year towards the cost of the hire of the hall and a small additional charge is made for tea/coffee - biscuits are then provided free.

Please bring your QL equipment if possible, all types welcome, e.g., PC portable running emulators. The Group has some systems stored at the venue for its use. In addition, there are lots of donated second user equipment, books, magazines, etc, available for purchase.

Time: 2.00pm to 6.00pm, on the second Sunday of the month.

No meetings are held in either December - winter break, or August - summer break. Giving 10 meetings a year.

Malcolm Cadman: Tel: 020 8691 5780; email: QL@mcad.demon.co.uk

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NEMQLUG - THE NORTH EAST MANCHESTER QL USER GROUP

Meetings are held at 181, Urmston Lane, Stretford, Manchester. M32 9EH (Near Junction 7 of M60 Motorway - Was Junction 7 M63 Motorway). Our informal meetings start at 7 p.m. and finish at 11p.m. All welcome.

Meets on the last Thursday of each month (except December).

John/Sarah Gilpin 0161-865 2872 (gilpins@ic24.net)

or John/Alison Southern 01625-850067. (tarragon@bigfoot.com)

SCOTTISH QL USERS GROUP

SQLUG meets at George Gwilt's home every second Sunday in the month. Please contact George Gwilt before coming to get the location.

Geogwilt@aol.com

SOLENT SUBGROUP

Meets at Botley Market Hall, all welcome. Park at the back and use side entrance.

1st Saturday of the month from 2.00 pm to 6.00 pm.

Graham Evans, Tel: 023 8040 3350.

SURREY QUANTA SUBGROUP (SQSG)

Venue is St Giles Church Hall, Ashted. (This is the other side, towards the downs, of the main Epsom - Leatherhead road, up Park Lane which is at the Epsom end of the town). From 8.00 to 10.30 pm on the last Wednesday of each month, except December.

Ken Bain 01932 347 432 (to midnight), kenb@bcs.org.uk

SUSSEX QL USER GROUP

Currently without a meeting place, anyone interested should contact Keith Mitchell or Roy Wood.

Roy Wood, 01273 386030 or Keith Mitchell, 01903 742263.

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